

3.1 Derivative as a function

Drag point X. What do you notice about point P?

the y-coord of P is
the slope of the
corresponding tangent line
(same x)

P lies on the line $y=2x$

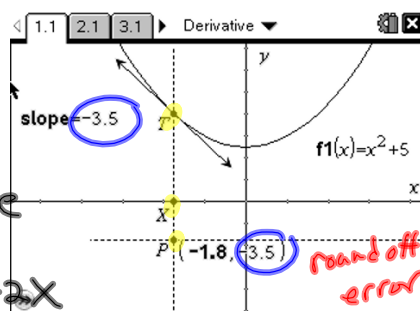
derivative (slope)

1. slope at a point. example:

the derivative of $y=x^2+5$
at $x=-1.8$ is -3.6

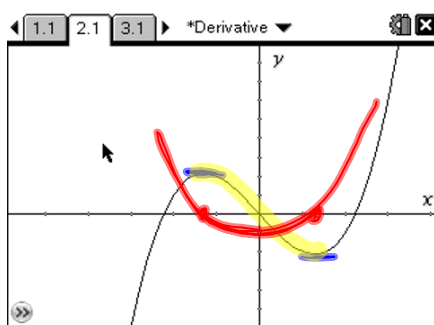
derivative at
point
(numerical
derivative)

2. slope function example
the derivative of $y=x^2+5$
is $y'=2x$



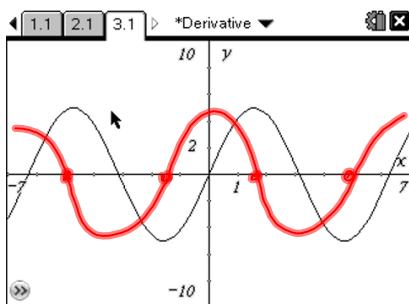
Sep 9-8:40 PM

sketch the derivative



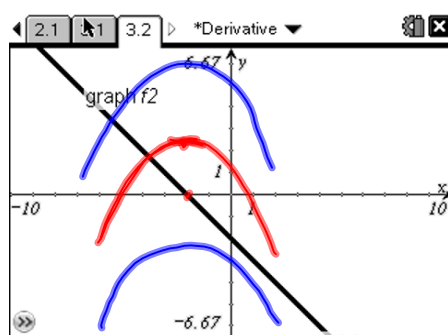
Sep 9-9:15 PM

sketch the derivative



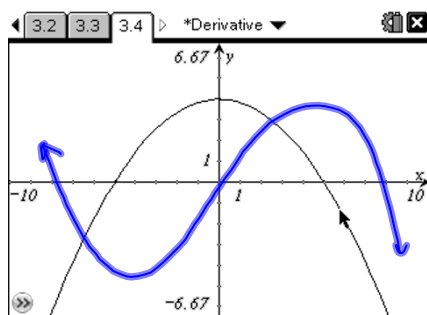
Sep 9-9:17 PM

given the derivative, sketch a possible graph of f



Sep 9-9:22 PM

given the derivative, sketch a possible graph of f



Sep 9-9:24 PM